REMARKS

The above amendments to the claims have been made to clear up matters of form. More particularly, the above amendments to the claims have been made to conform the antecedent basis of the claims to U.S. practice. No new matter has been added.

Entry and consideration of the proposed amendment is respectfully requested. Also, applicants respectfully urge favorable consideration and that this application be passed to allowance.

Dated: July 16, 2003

Charles N.J. Ruggiero, Esq.

Registration No. 28,468
Attorney for Applicants
Ohlandt, Greeley, Ruggiero

& Perle, L.L.P.

One Landmark Square Stamford, CT 06901

Tel: (203) 327-4500 Fax: (203) 327-6401

VERSION WITH MARKINGS TO SHOW CHANGES MADE

IN THE CLAIMS

Please amend claims 1 through 13 as follows:

1. (Once amended) A method for producing nitrogen trifluoride [through] by [a direct contact] contacting [of] a fused ammonium fluoride salt with a fluorine gas[,] comprising:

forming a stream of micro droplets of the fused ammonium fluoride salt by a [rapidly] rapid [ejecting] ejection of the fused ammonium fluoride salt [into] in a reactor through a nozzle; [while]

circulating the fused ammonium fluoride salt from a lower portion to an upper portion of [the] said reactor; and

contacting said stream of micro droplets of the fused ammonium fluoride salt with the fluorine gas, the fluorine gas being sucked in [to] [the] said reactor through a suction pipe for fluorine gas by a negative pressure, said negative pressure being formed around [the] said nozzle due to [an] said rapid ejection of the fused ammonium fluoride salt.

2. (Once amended) The method for producing nitrogen trifluoride according to claim 1, [wherein] further comprising the step of [fluorine gas is] periodically or intermittently [isolated] isolating [and] the fluorine gas and sucking an ammonia gas in [is sucked in the] said reactor [so as] to reproduce the <u>fused</u> ammonium fluoride salt through [the] a contact of the ammonia gas with [a] said stream [of micro droplets of the fused ammonium

fluoride salt], [thereby] wherein [maintaining] a ratio of HF/NH_3 is maintained at a constant level.

- 3. (Once amended) The method for producing nitrogen trifluoride according to claim 1, wherein the fluorine gas is introduced into [the] said reactor through [the] said suction pipe, [for] the fluorine gas [is] being diluted with mixed gases, said mixed gases having [containing] NF3 in [the] said reactor, the fluorine gas being introduced in said reactor by connecting [the] said upper portion [of the reactor] with [the] said suction pipe [for fluorine gas] using a tube.
- 4. (Once amended) The method for producing nitrogen trifluoride according to claim 1, wherein a portion of the fused ammonium fluoride salt in [the] said reactor [for nitrogen trifluoride production] is transferred to [another] a second jet-loop reactor, [(reproduction reactor), and the] said portion [fused ammonium fluoride salt is] being rapidly ejected [into the] in said [reproduction] second jet-loop reactor through a second nozzle, [while] said portion being circulated from a lower portion to an upper portion of [the] said second jet-loop [reproduction] reactor, [so that] a stream of micro droplets of [the fused ammonium fluoride salt is] said portion being contacted with ammonia gas, said ammonium gas being sucked [into the] in said second jet-loop reactor by a negative pressure being formed around [the] said second nozzle due to an ejection of the fused ammonium fluoride salt, wherein said portion and said ammonia gas [thereby] continuously [producing] produce nitrogen trifluoride, [with] continuously [reproducing] reproduce the fused ammonium fluoride salt and [recycling] recycle the fused ammonium fluoride salt reproduced [into the] in said second jet-loop reactor for nitrogen trifluoride production.

- 5. (Once amended) The method for producing nitrogen trifluoride according to claim 1, wherein [the] <u>said</u> reactor [includes] <u>has</u> a jet ejector pipe having nozzles, each of said nozzles having a cross-sectional area and a throat having a throat cross sectional area, [which has 5~25 of a ratio of the cross sectional area of a throat to the total cross sectional area of nozzles] <u>wherein a ratio of said throat cross section area to said cross section area is selected from the group consisting of 5, 25, 5 through 25, and any combinations thereof.</u>
- 6. (Once amended) The method for producing nitrogen trifluoride according to claim 1, wherein an ejecting linear velocity of the fused ammonium fluoride salt at [the] said nozzle is about 2 meters/second [~] through about 30 meters/second [m/sec].
- 7. (Once amended) The method for producing nitrogen trifluoride according to claim 1, wherein an ejecting linear velocity of the fused ammonium fluoride salt at [the] said nozzle is about 5 meters/second through about [~] 20 [m/sec] meters/second.
- 8. The method for producing nitrogen trifluoride according to claim 1, wherein the fused ammonium fluoride salt and the fluorine gas are [reacted] contacted with each other at a temperature of about 100 degrees Celsius through about [~] 150 degrees Celsius [°C].
- 9. The method for producing nitrogen trifluoride according to claim 1, wherein the fused ammonium fluoride salt and the fluorine gas are [reacted] contacted with each other at a temperature of about 110 degrees Celsius through [~] about 130 degrees Celsius [°C].

- 10. The method for producing nitrogen trifluoride according to claim 2, wherein the fused ammonium fluoride salt and the ammonia gas are [reacted] contacted with each other at a temperature of about 70 degrees Celsius through about [~] 150 [°C] degrees Celsius.
- 11. The method for producing nitrogen trifluoride according to claim 4, wherein the fused ammonium fluoride salt and the ammonia gas are [reacted] contacted with each other at a temperature of about 70 degrees Celsius through about [~] 150 [°C] degrees Celsius.
- 12. The method for producing nitrogen trifluoride according to claim 2, wherein the fused ammonium fluoride salt and the ammonia gas are [reacted] contacted with each other at a temperature of about 90 degrees Celsius through about [~] 120 [°C] degrees Celsius.
- 13. The method for producing nitrogen trifluoride according to claim 4, wherein the fused ammonium fluoride salt and the ammonia gas are [reacted] contacted with each other at a temperature of about 90 degrees Celsius through about [~] 120 [°C] degrees Celsius.